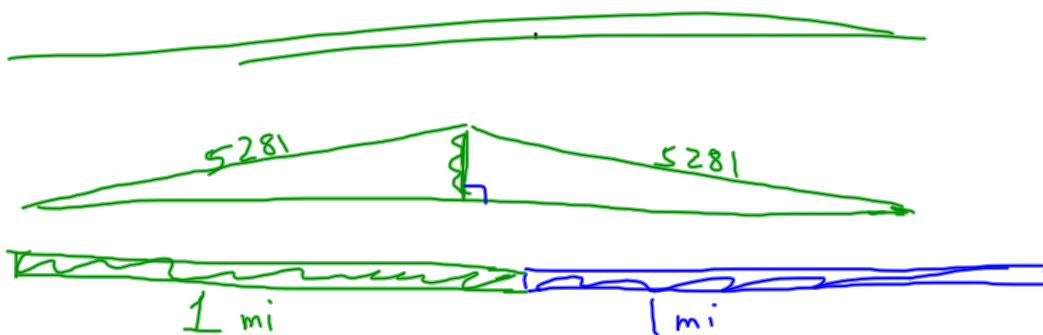
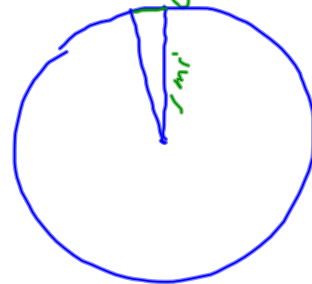


Question Consider a circle with
a radius of 1 mile (5280 ft)
How wide is the arc?
(made by 1 degree)

$$D = 92.15 \text{ ft}$$

$$(5280(2\pi))/360$$



$$(5281)^2 - (5280)^2 = 10561$$

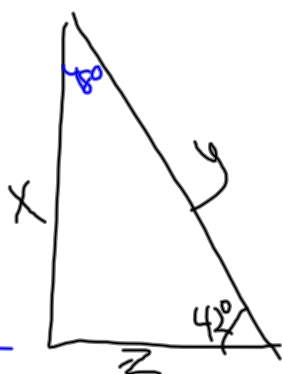
$$\sqrt{10561} = 102.7667$$

decimal		<u>DMS</u>
5°		Degree Minute Seconds
		<hr/>
	→	0° 30' 0"

$$\frac{X}{Y} = \sin 42^\circ \quad \left| \quad \frac{Y}{X} = \csc 42^\circ \right.$$

$$\frac{X}{Z} = \tan 42^\circ \quad \left| \quad \frac{Z}{X} = \cot 42^\circ \right.$$

$$\frac{Y}{Z} = \frac{1}{\cos 42^\circ} = \sec 42^\circ \quad \left| \quad \frac{Z}{Y} = \cos 42^\circ \right.$$



$\frac{X}{Y} = \# \text{ related to } 42^\circ$
 $= \# \text{ related to } 90 - 42 = 48^\circ$

$$\sin 42^\circ = .669$$

$$\sin 55^\circ = 0.819$$

$$\sin 71^\circ = .946$$

$$\sin 89^\circ = .9998476952$$

$$\sin 90^\circ = 1$$

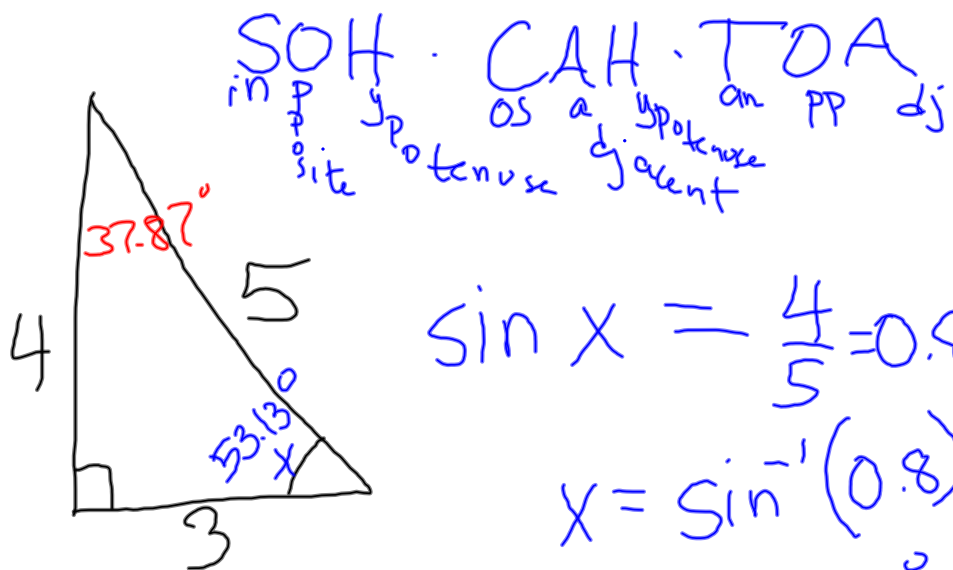
$\sin \sin^{-1}$

what is the
angle whose
sine is 0.819?

55°

..... cosine is ?
0.242

76°



$$\sin x = \frac{4}{5} = 0.8$$

$$x = \sin^{-1}(0.8) \\ = 53.13^\circ$$

SOH · CAH · TOA

